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## REMARKS

perhaps some  
back plot  
info on d 92  
would be useful  
to our people

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Central Intelligence Agency  
Office of the Deputy Director for Intelligence

2 December 1988

NOTE TO: Director of Central Intelligence  
Deputy Director of Central Intelligence

Attached is a draft of a white paper we are preparing for State on CW. At present I have one concern about the paper, and that is that

[redacted] That probably is appropriate, but it does raise some opportunity for criticism.

STAT

State is sending briefing teams to several European capitals and we plan to send people along to support them.

[redacted]  
Richard J. Kerr  
Deputy Director for Intelligence

STAT

Attachment

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The Proliferation of Chemical Weapons in the Middle East:  
A Menacing Threat to World Peace

Despite continued multilateral efforts to stop the proliferation of chemical weapons, some 20 countries now are capable of engaging in chemical warfare. Among the countries having this capability, Iraq, Syria, Iran, and Libya are of particular concern because of their location in the troubled Middle East.

Iraq has produced chemical warfare agents since the early 1980s. Syria and Iran began chemical agent and munition production shortly thereafter. And Libya is about to attain large-scale production of chemical agents and munitions.

These four Middle East countries are stockpiling a variety of chemical warfare agents for diversified missions. Some are intended for forward-area battlefield use, while others are for use on rear-area targets. These stocks of chemical weapons often can be stored for a period of 10 to 20 years.

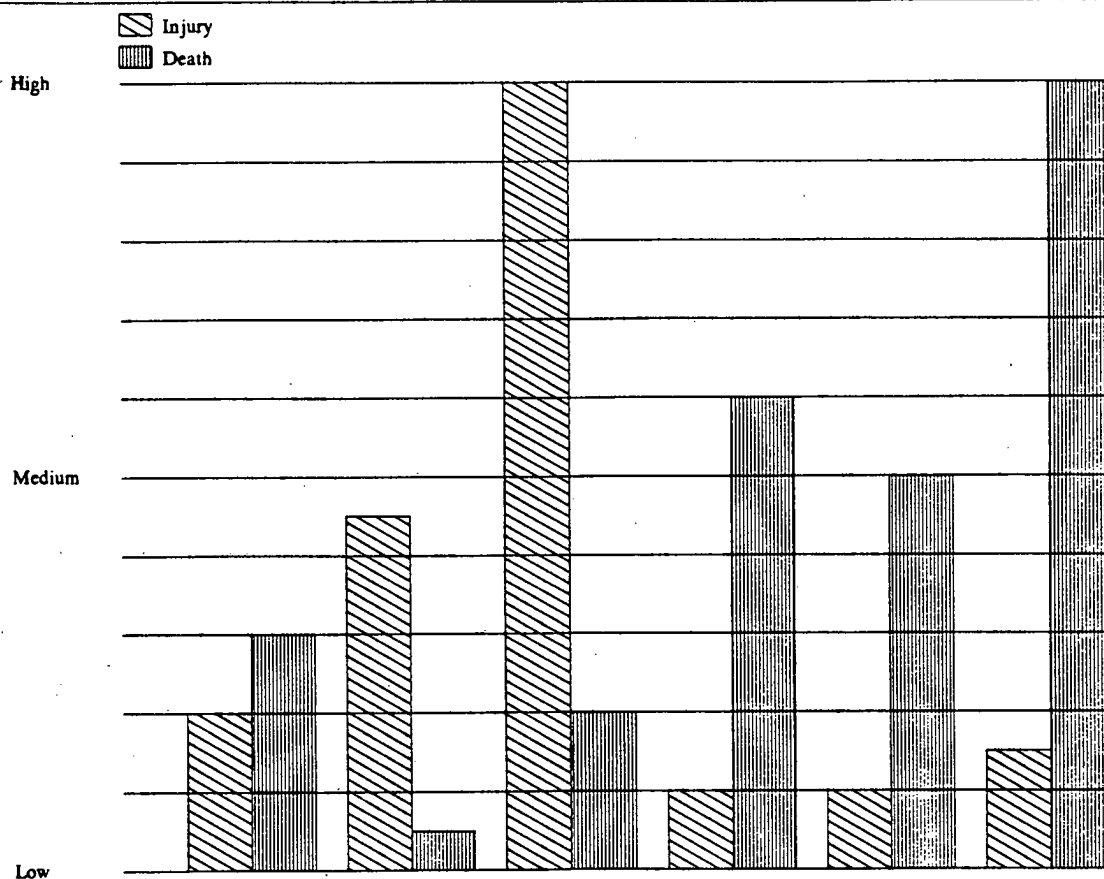
These same countries are quietly producing and amassing a variety of munitions that can be used as delivery systems for chemical agents. Bombs, artillery shells, artillery rockets launchers, and battlefield missiles have been filled with chemical agents.

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# Casualty Characteristics of Chemical Warfare Agents *produced in the Middle East*

Relative casualty potential (injury/death)



Agent	Cyanogen chloride	Phosgene	Mustard	Tabun	Sarin	VX
Class	Blood	Choking	Blister	Nerve		
Primary routes of exposure	Inhalation	Inhalation	Inhalation Skin Eyes	Inhalation Skin Eyes	Inhalation	Inhalation Skin Eyes
Physiological effects	Oxygen deficiency	Lung damage	Skin/respiratory tract blisters	Nervous system paralysis		

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The chemical weapons programs of Iraq, Iran, Syria, and Libya have a number a common traits:

- All have been given high priority by their governments and have been cloaked in secrecy.
- The production complexes have been accorded strict security; in many instances, attempts have been made to conceal them as legitimate industrial facilities.
- Assistance by foreign suppliers has been crucial to their development.

Assistance provided by foreign suppliers--many of whom were fully witting of the intentions of the Middle East countries to produce chemical weapons--has been the key element that has enabled these nations to develop a capability to produce these weapons within only a few years. Indeed, without this assistance, these Middle East countries undoubtedly would have been unable to produce chemical weapons. Assistance provided by foreign suppliers has included:

- Technical and operations expertise
- Constructing production facilities
- Supplying precursor chemicals

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- Supplying production equipment
- Supplying parts for munitions
- Training personnel

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## IRAQ:

The war with Iran prompted Iraq to develop a capability to engage in chemical warfare. Iraq has produced chemical agents and munitions since the early 1980s. The main chemical warfare complex located near Samarra, some 70 kilometers northwest of Baghdad, and a number of other production facilities, have produced several thousand tons of chemical agents.

From the program's inception, firms and individuals from Western Europe--were key to the supply of chemical process equipment, chemical precursors, and technical expertise. West Europeans remained at the site even after it began operations. But after several years of experience in producing chemical weapons, Iraq's well-established effort now is far less dependent on foreign assistance.

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Baghdad produces the blister agent mustard and the nerve agents tabun and sarin at Samarra. Several types of weapons have been filled with these agents, including bombs, and artillery shells and rockets.

Iraq first made military use of chemical agents in 1983 and 1984, when it began to use mustard and nerve agents against Iranian forces. Baghdad continued to use chemical agents on numerous occasions during the war. More recently--and

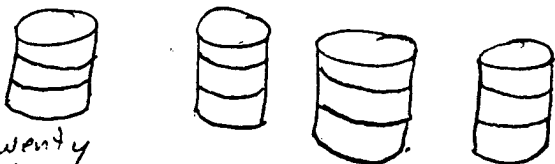
subsequent to the cease-fire with Iran--Iraq used lethal and non-lethal chemical agents against Kurdish civilians.

Despite the current cessation of hostilities, Iraq continues to produce and stockpile chemical weapons. Moreover, it is expanding its chemical weapons production base and is taking further steps to make its program entirely independent of foreign assistance.

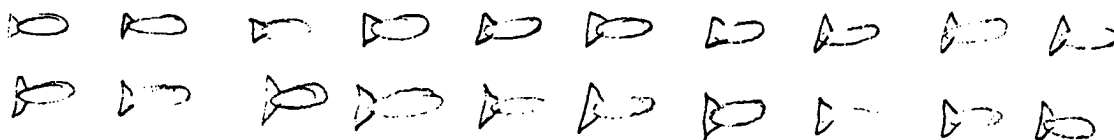
UNCLASSIFIED

One metric ton of the nerve agent sarin is enough to:

- <sup>four</sup>  
- Fill ~~4~~ 55 gallon drums



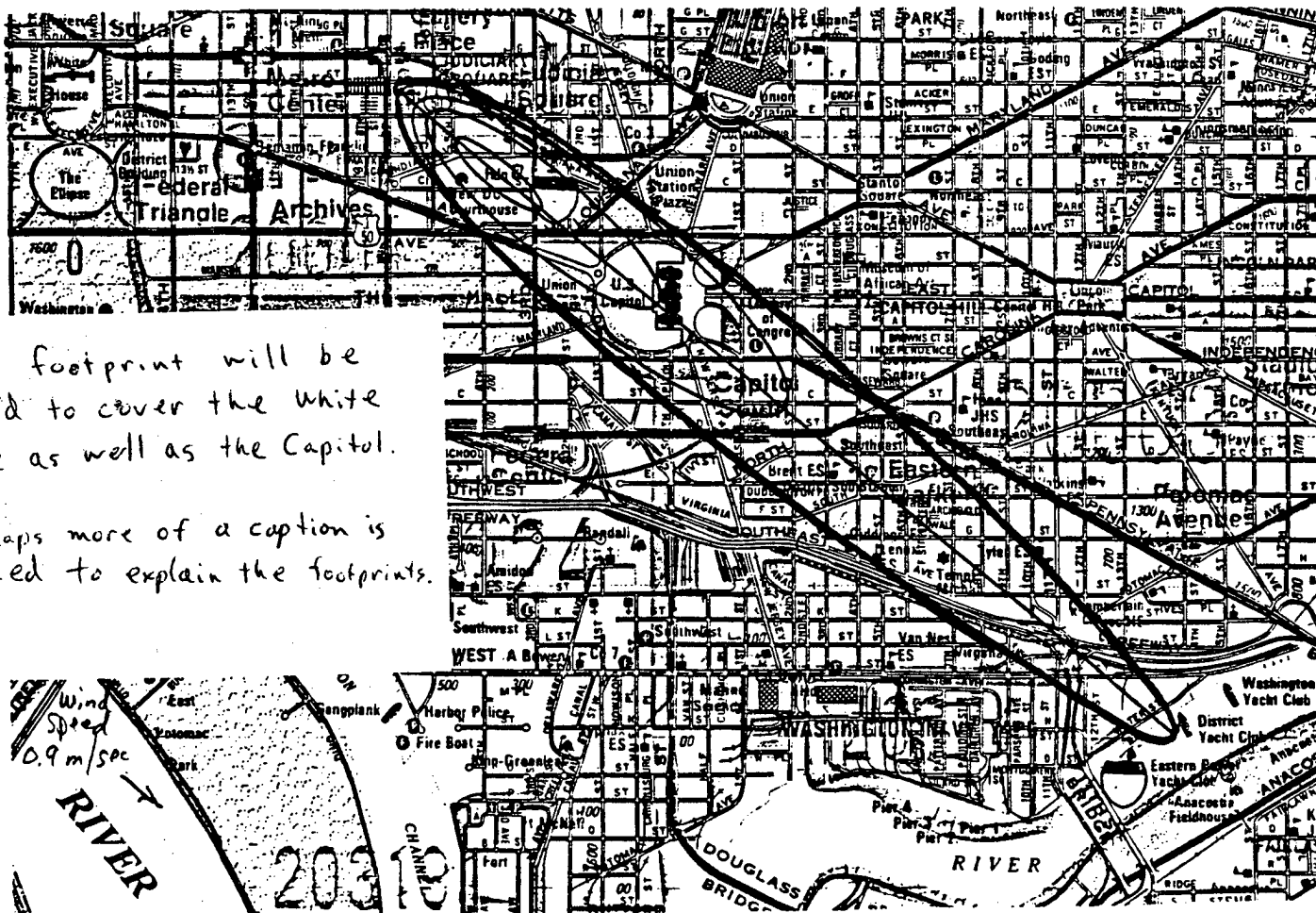
- <sup>twenty</sup>  
- Fill ~~20~~ 250kg bombs



- Fill two SCUD-B missile warheads, and



- Contaminate over one square kilometer of territory.

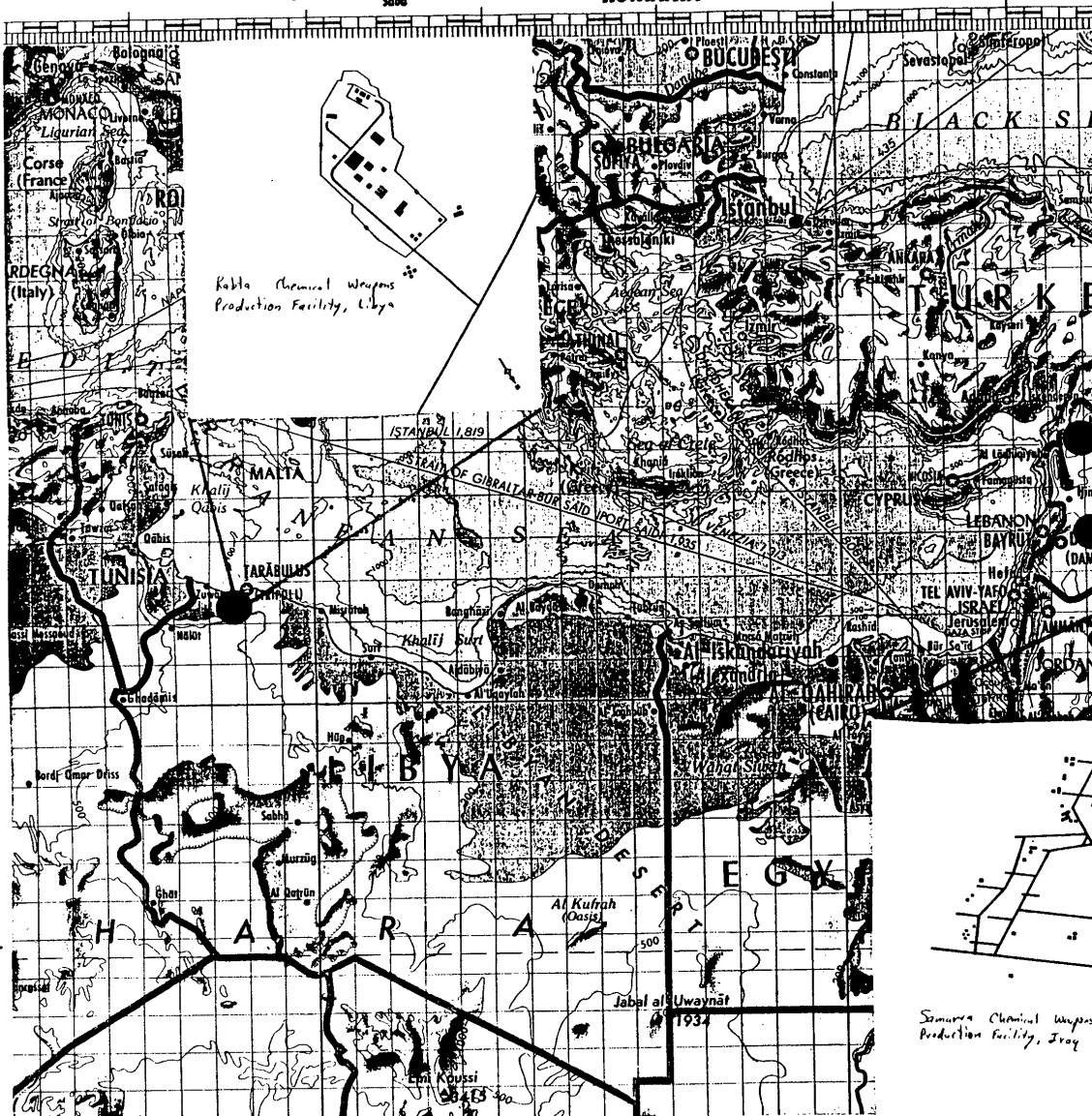


## SYRIA:

Syria began producing chemical warfare agents and munitions in the mid-1980s. There are two chemical warfare production facilities in Syria; one is located near Damascus, and the other is in northern Syria.

Syria has filled nerve agents into a variety of weapon systems. Damascus conceals its program in extreme secrecy and, much like its Middle East neighbors, continues to expand its chemical warfare capability.

Syria's own technological base provided much of the framework for establishing a chemical weapons program. But West European firms were instrumental in supplying the required precursor chemicals and equipment. Without the provision of these key elements, Damascus would have been unable to produce chemical weapons. Syria continues to produce and stockpile chemical weapons and it, too, is taking steps to reduce its dependence on foreign assistance.



CENTER FOLD

IRAN:

After suffering numerous Iraqi chemical attacks, Iran began in the mid-1980s to produce chemical agents and munitions and later used them in retaliation against Iraqi troops. Iran's chemical weapons production facility is located in the vicinity of Tehran.

Iran produces the blister agent mustard, blood agents, and nerve agents and has filled them into bombs and artillery.

Repeated chemical attacks by Iraq against Iranian troops prompted Tehran to seek foreign assistance in quickly establishing its own production program. West European and Asian firms responded by providing chemical processing equipment and chemical precursors. Despite the cease-fire with Iraq, Iran is continuing to expand its chemical warfare program.

## LIBYA:

Libya's resolve to have a chemical warfare production capability is about to be achieved. A large complex in a remote area about 80 kilometers southwest of Tripoli, near Rabta, has been constructed for this purpose. When this site is fully operational, it may be the largest chemical warfare agent production plant in the Third World. (Because Iraq has a number of production sites, however, its total production will continue to exceed Libya's.)

The chemical agent plant is expected to soon begin large scale--potentially tens of tons per day--production of mustard and nerve agents. The plant has already had at least one serious toxic chemical spill and such problems are likely to continue.

An adjacent metal fabrication facility is equipped with the precision materials to manufacture components for a variety of air- and ground-delivered chemical munitions. Other facilities are involved with filling and storing chemical weapons.

It would have been virtually impossible for Libya to harness the technologies necessary to build and operate such a facility without the assistance of foreign companies and personnel from several West European and Asian countries.

firms have provided extensive assistance in

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constructing the metal fabrication building. Many West  
European suppliers--

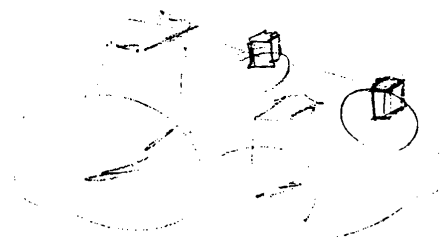
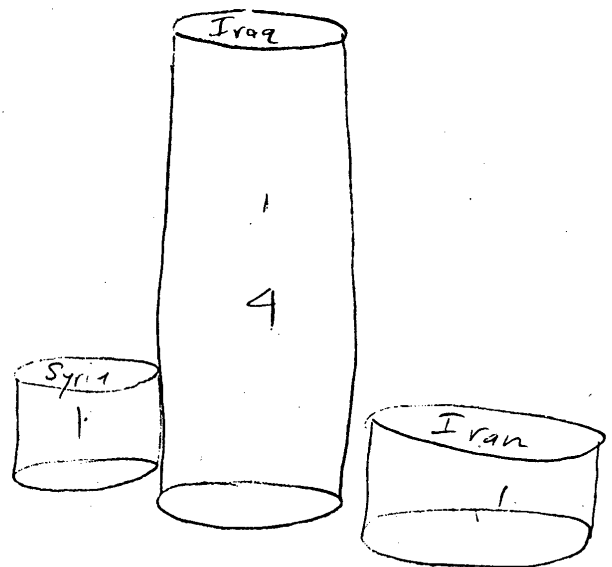
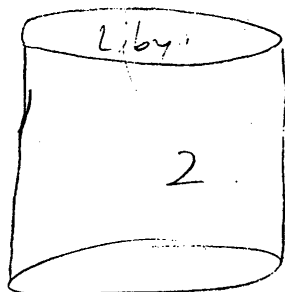
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--have also been involved, over the past several  
years, in construction and supply of materials for the  
complex.

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Libya's ability to sustain large-scale chemical warfare  
production will, in large measure, depend on continued  
foreign assistance. Tripoli will grow less dependent over  
time on foreign technical expertise, but will, for the  
foreseeable future, remain dependent on foreign suppliers to  
provide chemical precursors and equipment.

Relative (per Agent Productive Capacities  
TOTAL  
CAPACITIES  
TO PRODUCE  
CHEMICAL  
WARFARE AGENTS



5/10/1

### Characteristics of CW Facilities:

Because they can easily be disguised as legitimate pharmaceutical or pesticide facilities, chemical weapons facilities are often difficult to identify. A number of indicators, however, can earmark chemical weapons activity:

- Unusually tight security--including strong air defenses, multiple fence layers, and heavily restricted access--is unusual at commercial chemical complexes.
- A military presence--an aspect that is inconsistent with legitimate industrial activities.
- The location of facilities in areas remote from heavily populated areas--typically, because of the highly toxic nature of the chemical substances.
- A number of subtle indicators, taken in combination, also provide identification of such facilities.

The ease with which chemical weapons production facilities can be disguised is an obstacle to those who seek to curb the proliferation of these weapons.

- Much of the equipment needed to produce chemical

warfare agents can also be used to produce legitimate industrial chemicals.

- A period of only several hours would be needed to clean and decontaminate a site to make it almost impossible to detect that it had been producing chemical agents.

An international inspection team, with only limited and scheduled access, visiting a suspected agent production facility might find no conclusive evidence that chemical agent production has occurred.

Libyan leader Qadhafi, in a speech delivered in October, claimed that the facility at Rabta is intended to produce pharmaceuticals--not chemical warfare agents--and he proposed opening the complex for international inspection. It would be relatively easy for the Libyans to make the site appear to be a pharmaceutical facility; within fewer than 24 hours, all traces of chemical weapons production could be removed. All indications suggest, however, that this site was intended primarily for chemical warfare production. The specialized equipment, building design, and security there far exceed the requirements of a commercial plant. Many industrial chemical facilities can be converted easily to chemical warfare agent production. A nation with even a

modest chemical industry could use its facilities for part-time production of chemical warfare agents.

## The Challenge of Chemical Weapons Proliferation

Slowing the rapid proliferation of chemical weapons will require a cooperative international effort. Measures that could slow this pace include:

- Conclusion of a verifiable treaty--signed by CW-capable states--that bans chemical weapons.
- Cessation of foreign assistance to nations developing chemical weapons programs;
- Embargoes on the shipment of chemical weapon precursors.

The increasingly devastating threat imposed by the spread of these weapons could provide an incentive for CW-capable nations to participate in a multilateral treaty. Only a verifiable treaty, coupled with widespread international enforcement of measures to stop the transfer of assistance and equipment, can stop or significantly slow the rapid pace of the proliferation of chemical weapons in the Middle East and in other developing nations.

S/NF

In many countries, chemical and biological weapons are taking precedence because:

- They are cheaper than nuclear weapons.
- They can be produced using readily available materials, including standard laboratory, pesticide and pharmaceutical equipment--much of which is dual-use and thus hard to restrict.
- The technology required is simpler than for nuclear weapons.
- They require a less extensive infrastructure and less elaborate facilities.
- Their production is inherently less obtrusive, thus enhancing secrecy and security of programs.
- They are militarily useful--the wide variety of chemical and biological warfare agents enables a great deal of flexibility in their use.

More and more countries are therefore coming to realize that the ease of development of chemical and biological weapons over nuclear weapons, as well as the destructive potential they possess, makes them truly a "poor man's atomic bomb."